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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/759,339	01/16/2001	Minoru Miyatake	Q62691	2152
7590 10/01/2004				
SUGHRUE, MION, ZINN, MACPEAK & SEAS, PLLC 2100 Pennsylvania Avenue, N.W. Washington, DC 20037			EXAMINER AKKAPEDDI, PRASAD R	
			ART UNIT 2871	PAPER NUMBER

DATE MAILED: 10/01/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 09/759,339	Applicant(s) MIYATAKE ET AL.	
	Examiner Prasad R Akkapeddi	Art Unit 2871	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 09 July 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |  |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input checked="" type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. <u>09/01/2004</u> . |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                    | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____. | 6) <input type="checkbox"/> Other: _____.  |

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 06/09/2004 has been entered.

### ***Drawings***

2. The previous objection to the drawings is hereby withdrawn.

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Allen et al. (Allen) (U.S. Patent No. 6,111,696).

As to claim 1: Allen discloses a diffuse reflecting polarizing film (polarized-light scattering film) for use in electro luminescent (EL) light source (col. 29, lines 35-44). Since the teachings of Allen apply to an electro luminescent light source suitable for use with the optical film that is a diffuse reflecting polarizing film, the

teachings will be applicable to the recited device in the instant claim. In addition, Allen teaches a polarizing light scatter plate which comprises a light transmitting resin (Col. 5, lines 5-21) and dispersedly contained therein another resin and the range for the refractive indices in two orthogonal directions (i.e., the axis direction and perpendicular direction) are less than 0.05 and greater than 0.05 respectively and overlaps the recited range of smaller than 0.03 and from 0.03 to 0.5.

Note that the range for the refractive indices in axis direction and perpendicular direction are less than 0.05 and greater than 0.05 as disclosed by Allen overlaps the range of smaller than 0.03 and from 0.03 to 0.5 (asserted in claim 1). Therefore, the range in claim 1 would have at least been obvious. See In re Malagari, 499 F.2d 197, 182 USPQ 549 (CCPA 1974).

When an electro luminescent light source is used in conjunction with the diffuse reflecting polarizing film, the emitted light from the device will be polarized and will be emitted through the polarized-light scattering film (see col. 38, lines 26-43), as recited in the instant claim.

5. Claims 2 and 6-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Allen in view of Shirasaki et al. (Shirasaki) (U.S. Patent No. 6,025,894).

a. As to claims 2 and 6: Though Allen teaches an EL light source, Allen does not go into any great details about electro-luminescent light sources.

Shirasaki in disclosing a scatter control member for organic electro-luminescent light source discloses that a scattering film (120) is superposed on

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the electrode substrate (110) (Fig. 35), the polarizing surface light source comprising the organic electro- luminescent device which has an illuminating planar surface.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to adapt the polarized-light scattering film disclosed by Allen to the organic electro luminescent device disclosed by Shirasaki to achieve compact, high-contrast display with low power consumption that provides a wide view-angle (col. 4, lines 1-9).

b. As to claims 7-9: Allen teaches a polarizing film and a birefringent polymer diffusion films (Col. 9, line 52-53) and the retardation is a function of index of refraction of the birefringent material and discloses Fresnel lenses (col. 21, line 61), as recited in instant claims 7-9.

c. As to claim 10: Allen teaches that the diffuse polarizer can be used in liquid crystal displays (LCDs) (col. 34, lines 62-67) and a display module (142) incorporating such a polarizer is described in Fig. 14 and (col. 38, lines 26-43). The module is located on the light emission side of the light source as can be seen from Fig. 14.

6. Claims 3 -5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Allen in view of Shirasaki as applied to claim1 above, and further in view of Pokorny et al. (Pokorny) (U.S.Patent No. 6,461,775).

Allen discloses that the film is out of thermoplastic resin (Col. 14, line 32) having the differences in the indices of refraction ( $\Delta n$ ), but does not disclose the glass transition temperatures and phase separation of the film.

However, Pokorny discloses thermoplastic material having various glass transition temperatures preferably 50 degrees to 150 degrees or greater (Col. 8, lines 58-67) and the phase relationship (col. 8, lines 9-10).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to adapt the type of film disclosed by Pokorny to the display device of Allen and Sharsaki to provide an interlayer film to minimize damage and contamination and to reduce distortions (col. 8, lines 31-35).

### ***Response to Arguments***

7. Applicant's arguments with respect to claims 1-10 have been considered but are moot in view of the new ground(s) of rejection.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Prasad R Akkapeddi whose telephone number is 571-272-2285. The examiner can normally be reached on 7:00AM to 5:30PM M-Th.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert H Kim can be reached on 571-272-2293. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.


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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

PRR

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Prasad R Akkapeddi, Ph.D  
Examiner  
Art Unit 2871

  
TARIFUR R. CHOWDHURY  
PRIMARY EXAMINER